

MINING / CONSTRUCTION

GEOFOAM

TWO COMPONENT EXPANDING SILICATE RESIN

DESCRIPTION

GeoFoam is a rapidly reacting, strongly expanding injection resin with flame protection and is CFC-free. GeoFoam consists of two components which react immediately after mixing and transforms very quickly into an extremely resilient and durable foam. The mixed resin can be injected into the rock through a packer. Within a few seconds, the reaction sets in along with an increase in volume and the resin mixture begins foaming.

The low viscosity of the grout combined with a high foaming factor, allows the grout to enter into the finest cracks. GeoFoam is particularly suited for the filling of large voids and cavities without shrinkage problems, while offering a very strong bond against pressurized water flows.

USES

GeoFoam is specially designed for the immediate stabilization of unconsolidated geological formations during tunneling and drilling in civil engineering, mining, tunneling, and geotechnical applications.

ADVANTAGES

- Low exothermic reaction temperature makes it a unique alternative for injections in mines
- Once cured GeoFoam can be cut through by TBMs
- Lower consumption due to very high expansion and penetration



APPLICATION METHOD

Before pumping, stir both components thoroughly. Drill boreholes before starting injection grouting.

Standard dual component injection equipment can be used for the application of GeoFoam. It ensures that the volumetric mixing ratio is consistent even at high pumping pressures during application.

One minute after being mixed, the resin begins to foam and then is forced by the foaming pressure into the rock, thus is capable of caulking not only fissures but even larger cleats or coarse-particle loose formations, such as gravel.

TECHNICAL DATA

The data below is laboratory data only. It may vary in practice due to thermal exchange between resin and strata, surface properties of the stone, humidity, pressure and other factors.

MATERIAL DATA

Parameter	Unit	Component A	Component B	Standard
Density at 25°C	Kg/m ³	1455 ± 30	1220 ± 15	DIN 12791-1
Color	-	brownish-turbid	brown	
Flash point	°F	N/A	>390	DIN 53213
Viscosity at 25°C	cps	260 ± 80	140 ± 15	ISO 3219

REACTION DATA

Parameter	Initial Temperature 77°F	68°F	50°F	Standard
Start of foaming	20 s ± 10 s	23 s ± 15 s	25 s ± 15 s	MCT PV 10-303
End of foaming	45 s ± 15 s	55 s ± 20 s	120 s ± 25 s	MCT PV 10-303
Foaming factor	15 - 30	15 - 30	15 - 30	MCT PV 10-303

SAFETY INSTRUCTIONS AND LIMITATIONS

Observe the usual precautionary measures for handling chemicals, see GeoFoam SDS.

When the material is warmed up, local overheating, e.g. at the container wall, must be avoided by any means.

PACKAGING AND TRANSPORTATION

CONTAINER TYPE	GEOFOAM COMPONENT A	GEOFOAM COMPONENT B
PC (Jug)	77 lbs (35 kg)	66 lbs (30 kg)
Steel Drum	281 kg (620 lbs)	514 lbs (233 kg)
IBC (Tote)	3,100 lbs (1,406 kg)	2,572 lbs (1,166 kg)

Other packing units available on request.

STORAGE AND SHELF LIFE

Storage is at least six months from date of delivery or twelve months from date of production when stored in a cool, dry, well-ventilated place between 50 degrees (10 °C) and 86 degrees (30 °C). If this time is exceeded, we recommend having the material checked by Minova USA, Inc. for compliance with specification. When the material is warmed up, local overheating, e.g. at the container wall, must be avoided by any means.

DISPOSAL

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of material in accordance with all applicable federal, state/provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

APPROVALS AND CERTIFICATES



an ISO 9001:2015
Quality Management System Certified Company.

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ADDITIONAL DOCUMENTATION

Started more than 135 years ago, Minova is a global manufacturer and supplier of chemical and mechanical earth control products and support equipment. With manufacturing plants on five continents and operations in more than 25 countries, Minova is an industry-leading provider of ground support solutions for the underground mining, construction and energy industries.

If further information is required consult Minova Americas website: www.minovaglobal.com.

- GeoFoam Component A Safety Data Sheet (SDS)
- GeoFoam Component B Safety Data Sheet (SDS)
- Strata Injection and Cavity Fill Chemicals – Minova Master Product Catalogue
- Injection Accessories – Minova Master Product Catalogue
- Minova GeoFoam Injection and Cavity Filling System Brochure
- Minova GeoFoam Product Specification

MANUFACTURER

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